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July 24, 1998

Magalie Roman Salas
Secretary
Federal Communications Commission
1919 M Street, N.W., Room 222
Washington, D.C. 20554

EX PARTE OR LATE FILED



Re: *Ex Parte* Presentation
Revision of the Commission's Rules to Ensure Compatibility
with Enhanced 911 Emergency Calling Systems
CC Docket No 94-102

Dear Ms. Salas:

This letter serves as notification that on July 21, 1998, William J. Todd and Jeremy Azif (representing PrimeCo Personal Communications, L.P.), had a meeting with John Cimko, Barbara Reidler, Ron Netro and Dan Grosh (of the Wireless Telecommunications Bureau) to discuss issues concerning the above-captioned proceeding. A copy of the presentation material distributed and discussed at this meeting is attached hereto.

Pursuant to Section 1.1206(a), an original and one copy of this letter are being filed with your office. Please associate this letter with the file in the above-captioned proceeding.

Please contact us should you have questions concerning the foregoing.

Sincerely yours,

William L. Roughton, Jr.

Enclosure

cc: John Cimko
Barbara Reidler
Ron Netro
Dan Grosh

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PrimeCo E911 Implementation Issues

**Ex Parte Presentation to
FCC Wireless Bureau
July 21, 1998**

**Jeremy Azif
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Agenda

- Technology Issues
- Cost Recovery
- Role of the Local Exchange Carriers (LECs)
- Phase II Implementation
- Strongest Signal

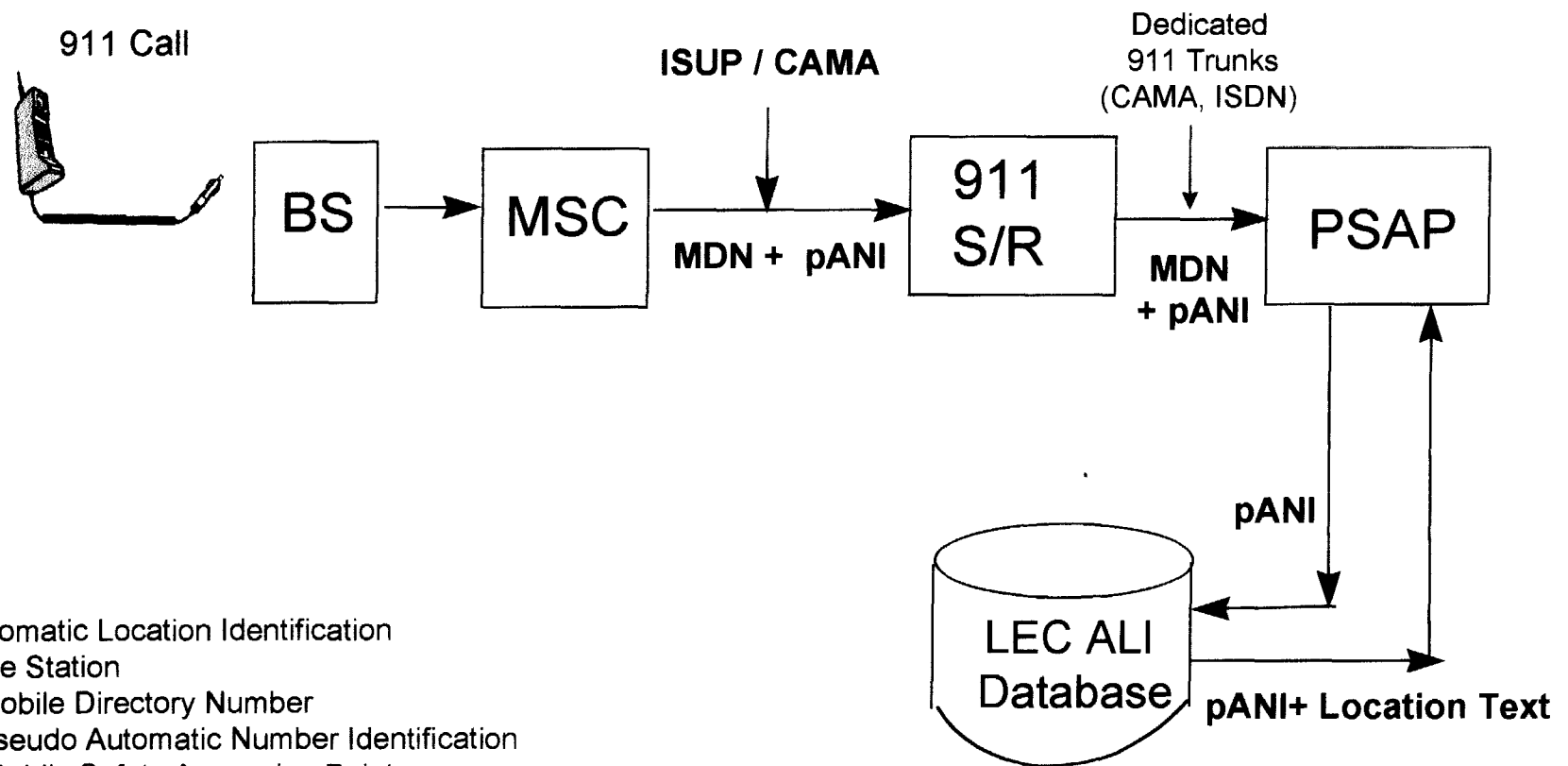
Technology Issues

Two Technical Approaches to E911 Implementation:

Call Path Associated Signaling (CAS)

- LEC-based solution
- All PSAPs receiving wireless 911 calls need to upgrade existing equipment and/or trunks
- Sends both ANI and ALI stream over same call path (20 digits sent)
- Call set-up time between 6 and 16 seconds depending upon type of trunking used between LEC 911 tandem and PSAP
- Difficult to migrate to Phase II because of 20 digit transmission limit

Call Path Associated Signaling (CAS) Network Architecture



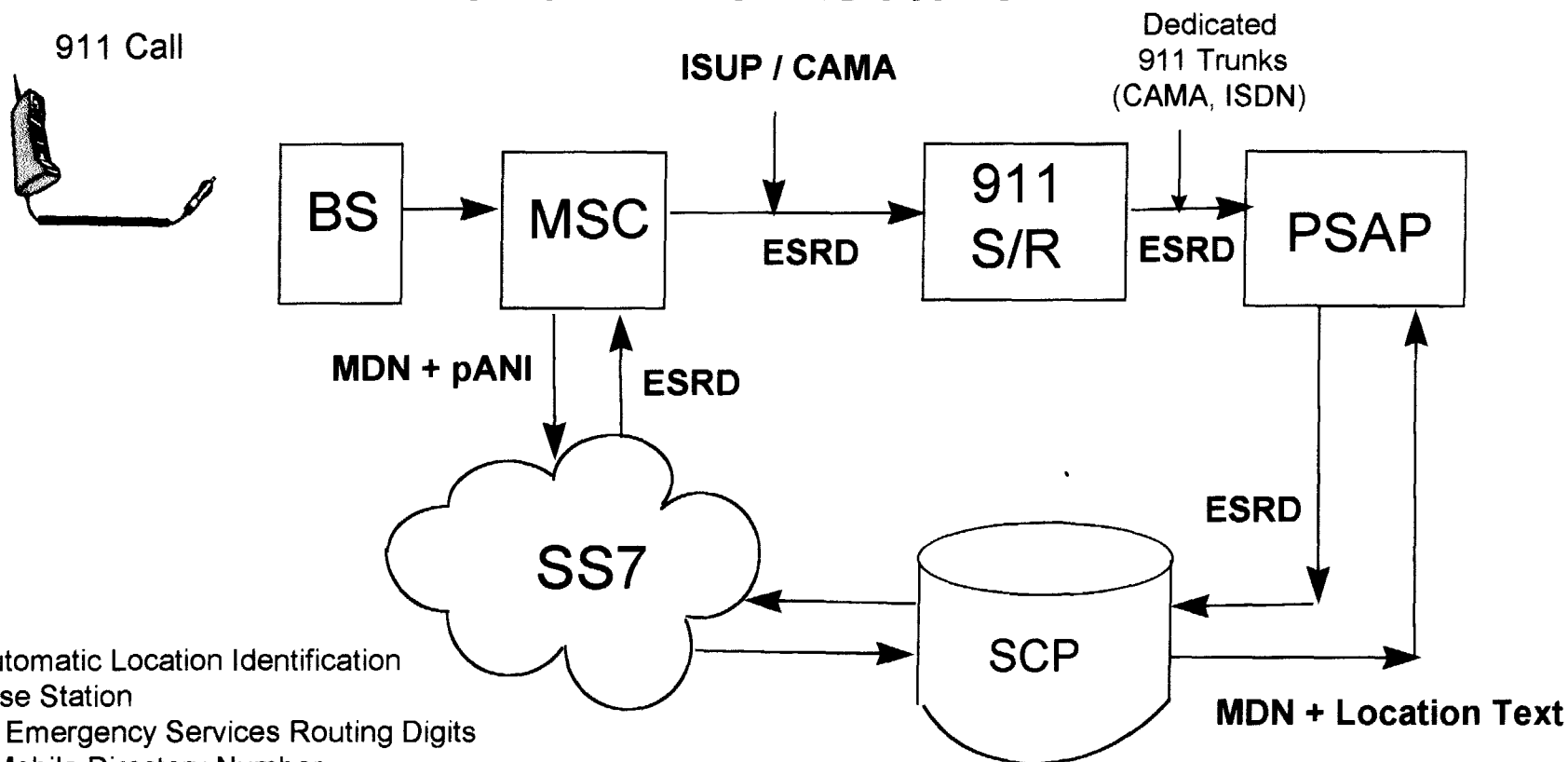
ALI: Automatic Location Identification
BS: Base Station
MDN: Mobile Directory Number
pANI: Pseudo Automatic Number Identification
PSAP: Public Safety Answering Point
S/R: Selective Router

Technology Issues (Continued)

Non-Call Path Associated Signaling (NCAS)

- Preliminary view of marketplace suggests that carriers prefer this solution over CAS
- Does not requires any PSAP upgrades as long as PSAP is enhanced
- ALI stream sent over SS7 network via interconnection with LEC ALI database
- Call set-up time between 6 and 10 seconds depending upon type of trunking between LEC 911 tandem and PSAP
- Facilitates easy migration to Phase II, since more than 20 digits (ie, x, y coordinates) may be sent to the PSAP
- Solution is technically equal to, if not better than the CAS solution

Non-Call Path Associated Signaling (CAS) Network Architecture



ALI: Automatic Location Identification
 BS: Base Station
 ESRD: Emergency Services Routing Digits
 MDN: Mobile Directory Number
 pANI: Pseudo Automatic Number Identification
 PSAP: Public Safety Answering Point
 S/R: Selective Router

Technology Issues (Continued)

Policy Implications:

- E911 transmission technology: who should choose?
- Multiple solutions are not cost effective for either wireless carriers or PSAPs due to lost economies of scale
- Carriers should promote the most efficient and cost effective solution

Cost Recovery Issues

- CAS solution will cost the PSAPs the same or more, not less as some PSAPs believe; carrier costs are still incurred for such items as switch upgrades, specialized trunking, translations, cell site setup, project management, performance monitoring, billing, database management, and labor
- Certain PSAPs opting for the CAS solution are using the carrier's customers' cost recovery monies to pay the LEC and not the wireless carrier, suggesting that the wireless carrier solution is too expensive
- PSAPs perceive E911 to be a profit center for wireless carriers although wireless carriers provide this service at cost
- Certain PSAPs wish to use Phase I monies directly for Phase II if they decide to bypass Phase I?
- PSAPs not clear on why they are suddenly being asked to pay for Phase I if the carrier is already forwarding them cell sector information

Phase II Implementation Issues

- Two solutions: network-based and handset-based; industry evenly split on both approaches
- Handset-based solution requires retrofitting of existing handsets and would entail significant cost and customer disruption to support existing customer base
- Some handset-based solutions for digital are deployable by the year 2000 and will be more accurate than 125 m, 67% of the time; handset churn facilitates more customer migration
- To the extent a PSAP selects its own Phase II technology, such a solution may force the carrier to abandon its own Phase II solution
- Roaming implications: Need for a single technology solution or waiver of Phase II requirement for roamers

Local Exchange Carrier (LEC) Issues

- LECs lack accountability under the First and Second Reports and Order; mandate is wireless carriers' obligation only
- No incentive for LECs to make ALI Steering available in a timely available; LEC infrastructure is generally available to support NCAS, however, many incumbent LECs are unnecessarily delaying making this infrastructure available to wireless carriers
- Many LECs have convinced the PSAPs that they must upgrade for Phase I and use the LEC CAS solution, thus bypassing the CMRS NCAS solution

Strongest Signal

General Concerns

- All carriers offer coverage in places that is both better and worse than their competitors
- Possible congestion problems can arise if all carriers are attempting to access the same signal at the same cell site, would prevent other 911 calls from going through
- PrimeCo handsets do not offer service provider selection capability without added cost to the consumer
- Increases call-setup time; would force handset to scan Primary Roaming List (PRL) for additional System Identification (SID) entries (including competitors); results in longer call-setup times, especially with dual-mode and tri-mode handsets

Strongest Signal (Continued)

Difficulties for CDMA

- CDMA soft handoff and multipath reception ensure that there is rarely a weak signal
- Handsets lock on to multiple base stations regardless of signal strength based upon the CDMA Determination Algorithm
- Base station control system dynamically adjusts transmission power during call to enhance the quality of the signal
- Potential for revenue loss; handset would remain locked on alternative carrier after 911 call is placed since no billing arrangements in place for competitors
- Retrofitting of handsets presents same dilemma as Phase II handset-based solution